

[0298] Description ([Descr]). A description of the Attribute.

[0299] Entity Class ID ([Entity_Class_ID]). The Entity Class ID specifies the Entity class to which this Attribute is associated.

[0300] Geometry Type ([Attr_Geometry_Typ_Cd]). Most Attributes of Division Sections and Road Sections are dynamic segmentation Attributes, which might be either point or linear events. Most Attributes of other Entity classes are simple values (i.e., not dynamic segmentation values). This property determines the type of dynamic segmentation that applies to an Attribute.

[0301] History Type ([History_Typ_Cd]). A continuous historical archive of most data is automatically maintained. However, a historical archive may not be required for some Attributes. This column indicates the type of historical data that should be maintained for this Attribute. This value must be consistent with the History Type value of the related Entity. The History Type value of the table used to store the Attribute values of this Attribute must also have a history type that is consistent with this History Type.

[0302] Location Type ([Attr_Location_Typ_Cd]). Dynamic segmentation allows the system to reference linear sub-sections *along* a Road or Division Section. However, some Attributes may refer to locations that are either sub-sections *across* a Road or Division Section or a position *on* a Road or Division Section. For example, a county line may run down the middle of a road, and half of the road should lie in each county. The location type property indicates which of the types of dynamic segmentation location apply to an Attribute.

- 5 **[0303] Lookup Table ID ([Application_Table_ID_Lookup]).** Some Attribute values are specified as codes pointing into a lookup table that contains a description for each code. The Lookup Table ID column is either Null if this Attribute does not have a related lookup table, or is the Application Table ID value for the related lookup table.
- [0304] Lookup Table Join Field ([Lookup_Join_Field_Name]).** A lookup table for an Attribute is implemented by a relationship between the Attribute and a column in the lookup table. This property specifies the name of the column in the lookup table used in this join.
- 10 **[0305] Lookup Table Name Field ([Lookup_Descr_Field_Name]).** A lookup table provides a list of allowed values for an Attribute and a name for each of those allowed values. This column specifies the name of the column in the lookup table that contains the names of the allowed values.
- 15 **[0306] Name ([Name]).** Each Attribute is identified by a name, which must be unique among the Attributes and Attribute clusters associated with an Entity class.
- 20 **[0307] Required ([Required_Ind]).** Because most Attributes are stored in Attribute tables that are related to an Entity table, it is possible to represent null values of an Attribute by omitting the row in the Attribute table that would define the value of that Attribute. Omitting rows in this manner changes the way in which an Attribute must be queried. This property indicates whether a value is required (i.e., a row exists to support values) for this Attribute.

[0308] System Attribute ([System_Attribute_Ind]). Indicates whether an Attribute is a system Attribute, in which case the user cannot modify the meta-data describing this Attribute. Also, special routines are often required to generate results for system Attributes.

5 **[0309] Value Type ([Value_Typ_Cd]).** Most Attributes are single-valued. For example, each position of a road has an identifiable type of pavement, so the pavement type Attribute is single-valued. Some Attributes, however, can have multiple values. For example, a barrier type Attribute of a road would have multiple values if a road included both a guard rail and a sound barrier on one
10 side of the road. The value of this property specifies whether an Attribute is single- or multi-valued.

[0310] Visible To AdHoc Query ([AdHoc_Query_Visible_Ind]). A component is included to help generate ad hoc queries, and some Attributes are available in the ad hoc query component and some are not. This column indicates whether
15 an Attribute is available for inclusion in an ad hoc query.

[0311] Visible To Document Mgmt ([Document_Mgmt_Visible_Ind]). A document management component is included that allows documents to be associated with other Entities. This column indicates whether the Attribute is available to the document management component.

20 **[0312]** An Attribute Cluster 1710 defines a group of related Attributes. For example, all of the road characteristics related to pavement could be joined together into a pavement data Attribute cluster. For single-valued Attributes, the Attribute